

NEURAL REGENERATION CONDUIT

Abstract of the Disclosure

A neural regeneration conduit employing spiral geometry is disclosed. The spiral
5 geometry is produced by rolling a flat sheet into a cylinder. The conduit can contain a
multiplicity of functional layers lining the lumen of the conduit, including a confluent
layer of adherent Schwann cells. The conduit can produce a neurotrophic agent
concentration gradient by virtue of neurotrophic agent-laden microspheres arranged in a
nonuniform pattern and embedded in a polymer hydrogen layer lining the lumen of the
10 conduit.

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